Before the
Federal Communications Commission
Washington DC 20554

In the Matter of	)	
	)	
Utilities Telecom Council and Winchester	)	
Cator, LLC Petition for Rulemaking to Establish	)	RM-11429
Rules Governing Critical Infrastructure	)	
Industry Fixed Service Operations in the	)	
14.0–14.5 GHz Band	)	

REPLY TO OPPOSITIONS
OF THE
UTILITIES TELECOM COUNCIL

The Utilities Telecom Council ("UTC") takes this opportunity to reply to aspects of comments filed in the above-referenced proceeding. Commenters representing specific portions of the satellite communications community have made a wide variety of claims in opposing the proposal included in UTC and Winchester Cator, L.L.C's *Petition for Rulemaking.*[1] Much of this opposition is on technical grounds, especially the potential for harmful interference to satellite operations from critical infrastructure industry (CII) transmissions and/or the potential for interference to CII from primary satellite usage. UTC and Winchester Cator, L.L.C. are filing joint reply comments, including a detailed technical response, in answer to this issues, and UTC refers the FCC to those comments and incorporates the points made therein by reference. This separate statement is

[1] Utilities Telecom Council and Winchester Cator, LLC, *Petition for Rulemaking to Establish Rules Governing Critical Infrastructure Industry Fixed Service Operations in the 14.0–14.5 GHz Band*, RM-11429 (filed May 6, 2008)("the Petition").

meant to answer other claims made in certain initial comments to which UTC believes it must respond alone.

I. Meeting CII Needs is the Primary Purpose of the Petition.

UTC absolutely denies claims that the Petition is a front for what would primarily be commercial use of the 14.0-14.5 GHz frequency band.[2] As the sixty-year advocate of utilities' private, internal communications networks, and a consistent defender of the need for spectrum for such systems, UTC has no incentive to join in a proposal that would not be of benefit largely to its CII members to meet growing private, internal communications needs. This proposal would provide access to greatly needed spectrum for fixed data transmissions by electric, gas and water utilities, petroleum, railroads, pipelines and other critical industries – entities using these internal communications to protect the safety of life, health and property across the country through their provision of vital public services.[3]

CII use would be for internal purposes and would not be made commercially available to the public. As the Petition describes in detail, other entities would be permitted to use the spectrum only on a pre-emptible basis, subject to the control of the CII licensee, which would retain responsibility for compliance with FCC rules established as a result of this proceeding. While not related to CII operations, such additional use would be in the public interest by providing much-needed backhaul

[2] *See, e.g.,* Comments of ViaSat, Inc., RM-11429, filed June 26, 2008 (ViaSat), at 2; Opposition of SES Americom, Inc., New Skies Satellites, Inc., and Intelsat Corporation, RM-11429, filed June 26, 2008 (Intelsat), at 5-6.
[3] *See,* 47 C.F.R. §90.7.

services and adding spectrum efficiency to the secondary allocation where the spectrum is not needed by CII.

II. Secondary, Shared Use is Sufficient for CII Needs in This Frequency Band.

Would UTC and its CII members prefer to have primary, exclusive access to unencumbered spectrum to meet mission-critical data needs? Of course we would. Has the CII community been able to identify any such spectrum that the Commission would be willing to assign for its use, given its auction-exempt status? No. Thus, this proposal: an attempt to find a solution for a rapidly growing problem by means designed to cause as little harm as possible to other users. Based on the comments in this proceeding, the satellite industry clearly is not accustomed to sharing. As members of the private wireless community, however, CII have had decades of such experience. These entities operate thousands of private land mobile (PLMR) systems – an environment more difficult to control than fixed links – in frequency bands where they all are co-primary. Channels are truly shared, meaning there often are multiple authorized facilities on the same frequencies, at the same location or nearby, using site-specific licensing and a mix of analog and digital, conventional and trunked technologies. These systems are vital to the safety of thousands of personnel working under highly hazardous conditions, and their use helps to protect millions of customers, the general public.

Beyond these systems, the same frequency bands are host to secondary, fixed data systems used for the extremely critical monitoring and control of electric, gas and water infrastructure, among others. It is the upgrading and enlarging of systems like these, along with the pending deployment of new networks, that is driving the need for

access to new spectrum. Current systems are narrowband – 25 kHz or even 12.5 kHz frequencies that cannot accommodate large amounts of data and operate at extremely slow speeds.

Moreover, UTC itself, along with other CI industry associations, are highly experienced in coordinating shared use based on decades of work as FCC-certified frequency coordinators. Complying with complex rules to ensure protection of licensees is part of our everyday work and one of the reasons for our existence. While all details of the CII Coordinator role are not defined in the Petition, the coordinator is expected to be a CII association or similar entity. UTC anticipates that, like current PLMR coordination, applications for secondary CII use would be handled on a non-discriminatory first-come, first-served basis. However, it is reasonable for the specifics of this entity to remain flexible while this proposal is under discussion. Once service and technical rules are determined, UTC does not contemplate huge difficulties for the CI Coordinator in complying with them.

III. Broadband Data Capacity is a Critical Need for CII.

Opposition to this proposal from the satellite industry was not unexpected, and UTC and Winchester Cator did not take on an entire industry for the fun of a new challenge. UTC does not attempt to quantify the anticipated need that will arise among CII entities over the next ten to fifteen years; it would be absurd to do so. Nor does the satellite industry quantify its need to have exclusive use of the 14.0-14.5 GHz band forever.

It is an unquestioned fact that electric utilities around the globe, to be followed inevitably by water and natural gas utilities and other public service providers, are in the beginning stages of a revolution in how they provide critical services. Neither national and state governments, nor utilities themselves know how much the migration to smart grids will cost – other than that the price tag will run to the hundreds of billions of dollars in the U.S. alone. Nor do they know at this point how huge new information and communications technology networks will be deployed, how they will integrate with existing systems (since utilities do not contemplate scrapping legacy investments more than necessary, and would not be permitted to do so by regulators), or what mix of technologies will be used by each utility. What is known is that wireless technology will be an important part of this mix; that two-way communications capabilities throughout utilities, with homes and businesses, and among utilities will generate huge amounts of data that must be transmitted, collected and used to run a more efficient grid; and that CII entities do not have access currently to spectrum that can meet this need.[4]

UTC is consistently surprised that industries that rely heavily on reliable electric power, including commercial communications and its satellite subset, seem to forget the fact that power is not guaranteed: it takes reliable internal utility telecommunications networks to ensure that they get the service they must have to operate. American

[4] *Contra,* Opposition of the Satellite Industry Association, RM-11429, filed June 26, 2008 (SIA), at 16-17. As noted above, current narrowband frequencies are woefully slow; current Fixed Service access is shared, has been reduced several times in recent years, is becoming increasingly difficult to find and lacks the capacity of proposed 50 MHz broadband channels in the 14.0-14.5 GHz band. Beyond spectrum, leased circuits from incumbent telcos are considered the least reliable portions of a utility network, especially in emergencies. And while many utilities build and operate internal fiber networks, this is not economically or practically possible for smaller utilities or those covering large areas of rural or rugged terrain.

industries count local economic damage from relatively short power outages in the millions of dollars; lengthy power outages have the effect of regressing a computer-based information society by centuries. The current U.S. power infrastructure is a half-century old in many places, and utilities are working with outdated technology for control, monitoring, outage detection, metering and other functions. Broadband data spectrum is a necessity as the electric system moves to smarter, more efficient grids, including distributed, "greener" generation using renewable resources and homes and businesses equipped with smart networks. Interoperability also will be important, as control and balance of the grid moves across utility service boundaries. *Now* is the time – before new networks are implemented in large numbers – to ensure that these needs will be met and that reliable electric power remains a safe assumption for the United States.

IV. Conclusion

UTC urges the FCC to move forward expeditiously with a Notice of Proposed Rulemaking in this proceeding as outlined in the Petition.

Respectfully submitted,

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